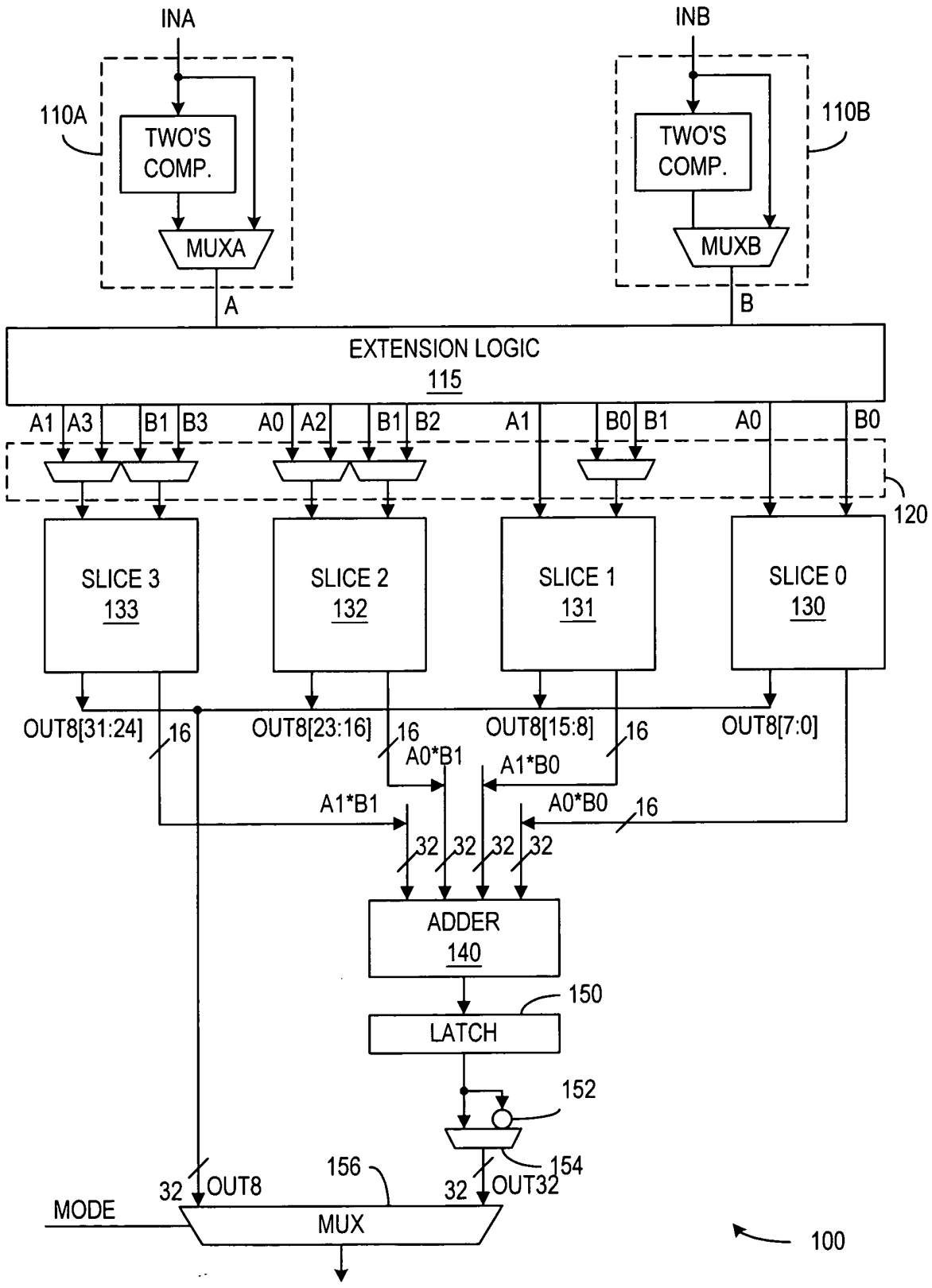
INA
INB
110A
TWO'S COMP.
MUXA
110B
TWO'S COMP.
MUXB
A
B
EXTENSION LOGIC
115
A1 A3 B1 B3 A0 A2 B1 B2 A1 B0 B1 A0 B0
120
SLICE 3
133
SLICE 2
132
SLICE 1
131
SLICE 0
130
OUT8[31:24]
16
OUT8[23:16]
16
OUT8[15:8]
16
OUT8[7:0]
A0*B1
A1*B0
A1*B1
A0*B0
16
32 32 32 32
ADDER
140
150
LATCH
152
154
156
32 OUT8
32 OUT32
MODE
MUX
100

FIG. 1

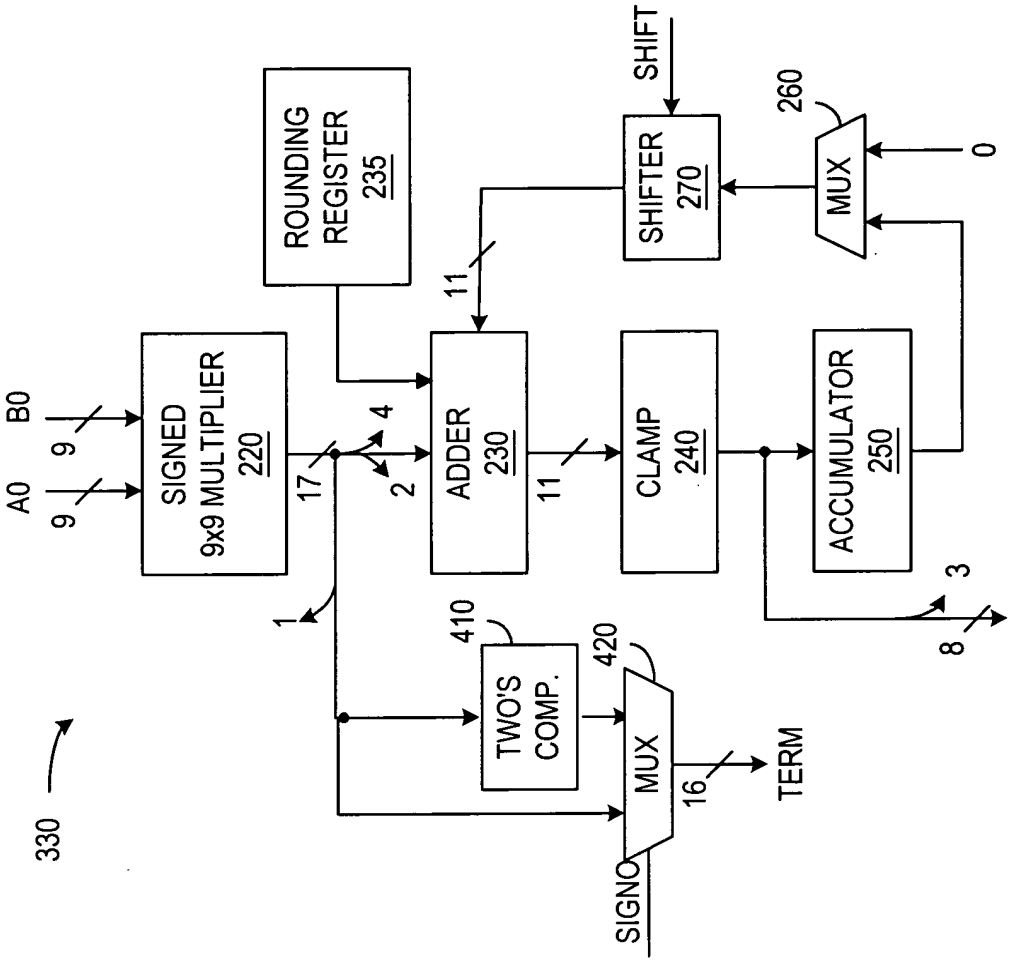
330
A0
B0
9
9
SIGNED 9x9 MULTIPLIER 220
17
1
4
2
ROUNDING REGISTER 235
ADDER 230
11
11
CLAMP 240
SHIFT
SHIFTER 270
260
MUX
0
ACCUMULATOR 250
3
8
OUT8[7:0]
410
TWO'S COMP.
420
MUX
16
TERM
SIGNO

FIG. 4

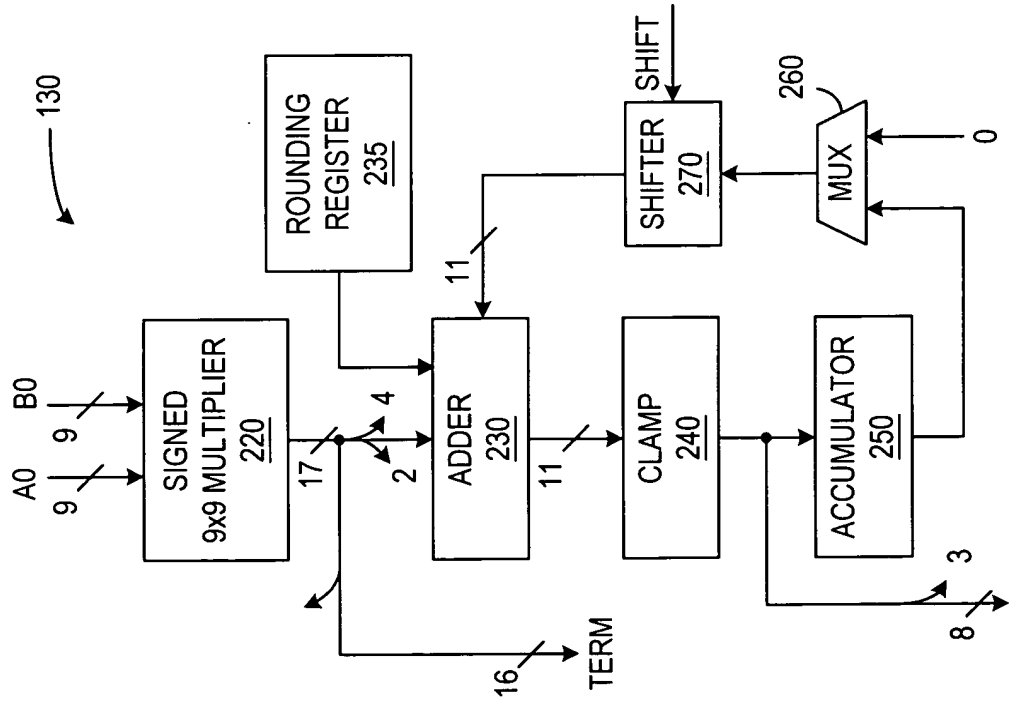
130
A0
B0
9
9
SIGNED 9x9 MULTIPLIER 220
17
4
2
ROUNDING REGISTER 235
ADDER 230
11
11
CLAMP 240
SHIFT
SHIFTER 270
260
MUX
0
ACCUMULATOR 250
3
8
OUT8[7:0]
16
TERM

FIG. 2

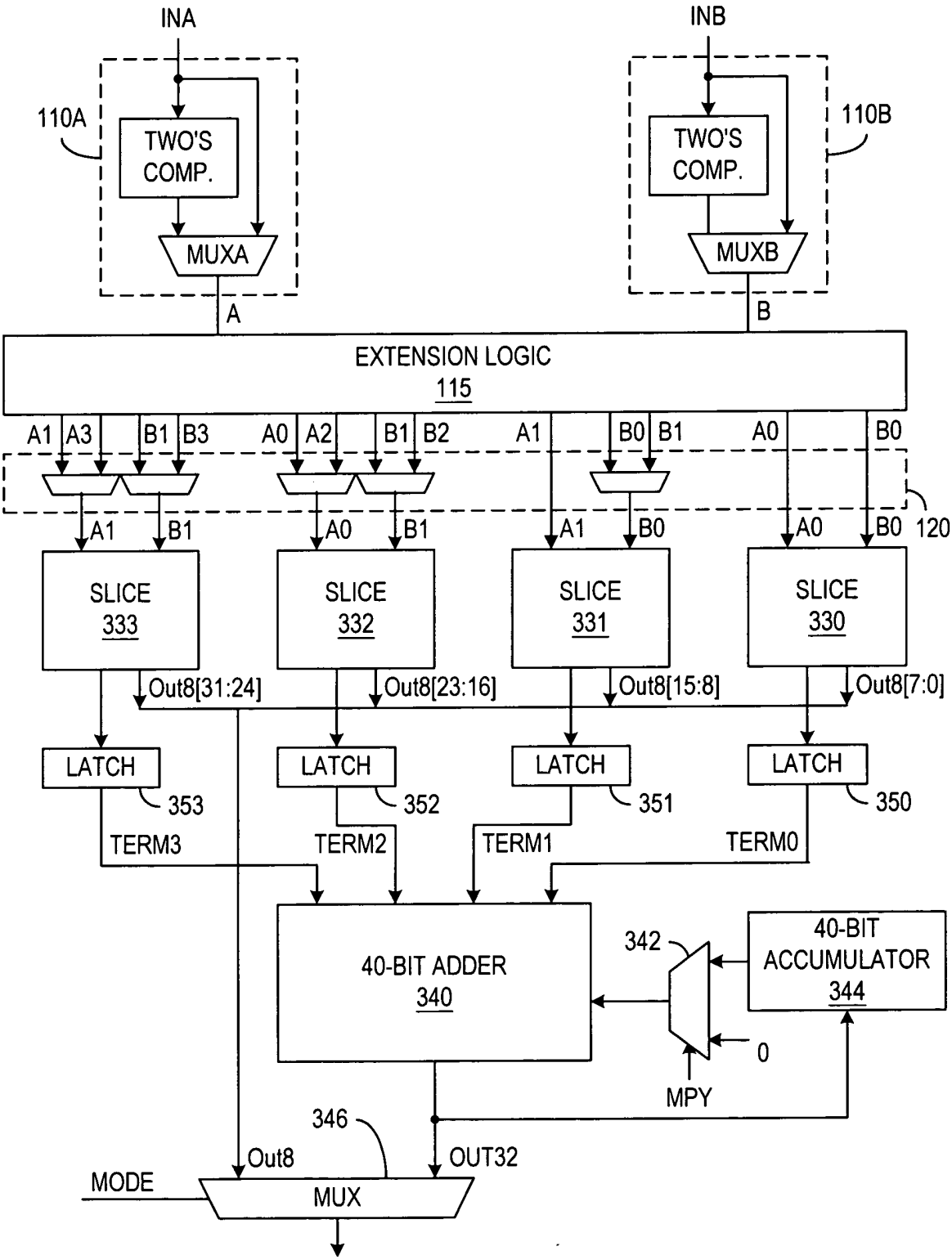
INA
INB
110A
TWO'S COMP.
MUXA
110B
TWO'S COMP.
MUXB
A
B
EXTENSION LOGIC
115
A1 A3 B1 B3 A0 A2 B1 B2 A1 B0 B1 A0 B0
120
A1 B1 A0 B1 A1 B0 A0 B0
SLICE 333
SLICE 332
SLICE 331
SLICE 330
Out8[31:24]
Out8[23:16]
Out8[15:8]
Out8[7:0]
LATCH
353
LATCH
352
LATCH
351
LATCH
350
TERM3
TERM2
TERM1
TERM0
40-BIT ADDER 340
342
40-BIT ACCUMULATOR 344
0
MPY
346
Out8
OUT32
MODE
MUX

FIG. 3